

What is claimed is:

1. A locking device for maintaining a fixed angular relationship between a driving shaft and a driven shaft, the locking device being adapted to be used in an internal combustion engine, the locking device comprising:
  - 4 a variable camshaft timing phaser having a center mounted spool valve, wherein a null position is hydraulically controlled, the phaser having a plurality of angular relationships;
  - 7 an electro-magnetic locking mechanism; and
  - 8 a locking plate interposed between the phaser and the locking mechanism.
1. The locking device of claim 1 further comprising a second plate rotably coupled to the locking plate during an unlock state.
1. The locking device of claim 1 further comprising a strap drive interposed between the phaser and the locking plate for biasing the locking device toward the electro-magnetic locking mechanism.
1. The locking device of claim 1 further comprising a stopping element for preventing the locking plate from direct contact with the electro-magnetic locking mechanism.
1. The locking device of claim 1, wherein the electro-magnetic locking mechanism comprising a coil.
1. The locking device of claim 1, wherein the angular relationships include the angular relationship between a cam shaft and the crank shaft, or two cam shafts.
1. The locking device of claim 1, wherein the driven shaft is a cam shaft.
1. The locking device of claim 1, wherein the driving shaft is a crank shaft.
1. The locking device of claim 1, wherein the driving shaft is a cam shaft.